Comovement of Asian Stock Markets and the U.S. Influence

Jin Woo Park

This paper investigates the comovement of equity markets in 11 Asian countries, including Thailand, Malaysia, Indonesia, Singapore, the Philippines, Korea, Japan, China, Hong Kong, Taiwan, and India; additionally, the dependence structures of these markets to the U.S. equity market for the 2005-2008 period are also examined. We noted remarkably high correlation coefficients across the Asian markets, reflecting strong comovement of the Asian markets. Among those, the countries with more developed financial systems (i.e., Japan, Singapore, and Hong Kong in Asia) exhibited stronger linkages to the rest of the Asian markets. China, conversely, evidenced the lowest correlation with other Asian markets. The linkages were stronger for the East Asian markets than for the ASEAN markets generally. A comparison of the results between the first (2005-2006) and second (2007-2008) sub-periods reveals a recent strengthening of the Asian markets. Additionally, we found a significant mean spillover effect from the U.S. equity market to all 11 of the Asian markets. Among those, the stock markets of the Philippines and Japan were the most sensitive to daily changes in U.S. market returns, and the Hong Kong, Korea, Indonesia, Singapore, Taiwan, and India markets are next in respective order in terms of U.S. influence. The influence of the U.S. on the stock markets of Thailand, Malaysia, and China is relatively weak. The mean spillover effect has increased significantly from the first period (2005-2006) to the second period (2007-2008) for most Asian countries, with the exception of Thailand, Indonesia, the Philippines, and Taiwan, where the U.S. market influence is slightly reduced. Additionally, there exists a volatility spillover effect from the U.S. market to the stock markets of Malaysia, Indonesia, Singapore, Korea, Japan, Hong Kong, Taiwan, and India. Among those, the Indonesian stock market is one of the most sensitive to daily changes in U.S. market volatility, and India and Korea are next in order. However, U.S. market volatility appears to exert no impact on return volatility in the stock markets of Thailand, the Philippines, and China. In conclusion, the results of this study show that the daily stock market movements of Asian countries are closely linked with one another, and are influenced significantly by the U.S. market. These linkages have also strengthened over time. The results of this paper have important implications with regard to the potential benefits from portfolio diversification into Asian equity markets.

***Keywords*: Asian stock markets, Comovement, Spillover effect, Linkage**